AMENDMENTS TO THE CLAIMS

Please amend the claims as follows.

Claim 1 (Currently Amended): A three-dimensional image displaying apparatus, comprising:

a spatial light modulation element having a discrete pixel structure and expressing a hologram;

an illumination optical system generating reconstruction light by causing illumination light to enter said spatial light modulation element that expresses the hologram; and

a reconstruction image converting optical system displaying a reconstruction image by producing a virtual image wavefront-converted from the reconstruction light,

wherein at least one of ~~a bright point interval and initial phase value of respective bright points constituting a target reconstruction image to be displayed~~ each interval between bright points and each initial phase value of the bright points is set such that peaks of the reconstruction light[[,]] ~~reaching a region where the observation of reconstruction image obtained through diffraction of a specified order in said spatial light modulation element is permitted~~[[,]] are produced at different plural points on a back focal plane of said reconstruction image converting optical system, the bright points constituting a target reconstruction image to be displayed, the reconstruction light reaching an observation region where the observation of reconstruction image obtained through diffraction of a specified order in said spatial light modulation element is permitted.

Claim 2 (Currently Amended): [[A]] The three-dimensional image displaying apparatus according to claim 1, wherein the each initial phase value of ~~each of said respective~~ the bright points[[,]] ~~constituting the target reconstruction image~~[[,]] is varied as time elapses.

Claim 3 (Currently Amended): [[A]] The three-dimensional image displaying apparatus according to claim 1, further comprising a mask provided on the back focal plane of said reconstruction image converting optical system, said mask transmitting light components ~~reaching the peak positions, among~~ of the reconstruction light ~~reaching within the region where the observation of reconstruction image obtained through the diffraction of the specified order is permitted~~[[,]] and blocking light components obtained through diffraction of a different order other than the specified order.

Claim 4 (Currently Amended): A three-dimensional image displaying method ~~that provides a spatial light modulation element having a discrete pixel structure with a hologram, generates reconstruction light by causing illumination light to enter said spatial light modulation element, and displays a reconstruction image by said reconstruction image converting optical system producing a virtual image wavefront converted from the reconstruction light, comprising the step of:~~ , comprising the steps of:

preparing the three-dimensional image displaying apparatus as set forth in claim 1; and

causing said spatial light modulation element to express a hologram capable of displaying [[a]] the target reconstruction image to be displayed, by ~~setting at least one of a bright point interval and initial value of respective bright points constituting the target reconstruction image~~

~~such that peaks of the reconstruction light reaching a region, where the observation of reconstruction image obtained through diffraction of a specified order in said spatial light modulation element is permitted, are produced at different plural points on a back focal plane of said reconstruction image converting optical system~~ using the three-dimensional image displaying apparatus.

Claim 5 (Currently Amended): [[A]] The three-dimensional image displaying method according to claim 4, wherein the each initial phase value of ~~each of the respective~~ the bright points[[,]] ~~constituting the target reconstruction image~~[[,]] is varied as time elapses.

Claim 6 (Currently Amended): [[A]] The three-dimensional image displaying method according to claim 4, wherein a mask[[,]] ~~which transmits light components reaching the peak positions, among the reconstruction light reaching the region where the observation of reconstruction image obtained through the diffraction of the specified order is permitted, and which blocks light components obtained through the diffraction of a different order other than the specified order~~[[,]] is arranged on the back focal plane of said reconstruction image converting optical system, said mask transmitting light components reaching the peak positions of the reconstruction light and blocking light components obtained through the diffraction of a different order other than the specified order, and

wherein the reconstruction image is displayed by means of the light components having passed through said mask.

Claim 7 (Currently Amended): [[A]] The three-dimensional image displaying method according to claim 4, wherein ~~the interval of the peak positions of~~ a minimum peak interval in the reconstruction light reaching the observation region[[,]] ~~where the observation of reconstruction image obtained through the diffraction of the specified order in said spatial light modulation element on the back focal plane of said reconstruction image converting optical system~~[[,]] is smaller than the diameter of the pupil of an observer observing the reconstruction image.

Claim 8 (Currently Amended): [[A]] The three-dimensional image displaying method according to claim 4, wherein, when the wavelength of the illumination light is λ, the focal length of said reconstruction image converting optical system is f, the pixel pitch of said spatial light modulation element is p, the diameter of the pupil of the observer observing the reconstruction image is d, and the interval of the bright points of an equal initial phase value among the bright points constituting the target reconstruction image is Np (N is an integer of two or more), the following relationship is satisfied:

$$d/2>\lambda f/(Np).$$